IN THE SPECIFICATION:

Referring to the published PCT application (copy enclosed):

Page 1, immediately after the title, cancel lines 1 through 5, and substitute in place thereof:

RELATED PATENT APPLICATIONS & INCORPORATION BY REFERENCE

This application is a National Stage application of International Application No. PCT/US2004/032375, entitled "METHODS, COMPOSITIONS, APPARATUSES CONTAINING TETRAMERIC OXYGEN," filed October 4, 2004, which claims the benefit under 35 USC 119(e) of U. S. provisional patent application Serial No. 60/508,748, filed October 3, 2003. All of these related applications are incorporated herein by reference and made a part of this application. Moreover, the inventor incorporates herein by reference any and all U. S. patents, U. S. patent applications, and other documents, hard copy or electronic, cited or referred to in this application.

Page 3, revise paragraph [0012] to read as follows:

[0012] The composition may be delivered in solutions, gels, **[solids,]** semi-solids, pastes, lotions, mists, sprays, foams, suppositories, emulsions. The composition may be nebulized, aerosolized and atomized. The solution may be delivered in sustained release form. The route of administration may vary. For example the composition may be injected subcutaneously, subdermally, intraveneously, intradermally,

[subdermally,] intrathecally or intraperitoneally. **[It may also be orally ingested or sublingually absorbed.]**

Page 7, insert after paragraph [0029], line 18, the following restatement of the original claims:

IN GENERAL

Blood and tissue is oxygenated with tetrameric oxygen as oxygen therapy. For example, the tetrameric oxygen may be contained in a gel, paste, cream, liquid and lotion vehicles, emulsion, ointment, and optionally, additional solvent or stabilizer may be used.

It may be supported by a substrate such as, for example, a membrane or thin film. The substrate may comprise a hollow tube. Mechanical devices may be used in delivery. An independent delivery device with or without pH monitoring may be used. It may be used in conjunction with a transcutaneous oxygen measuring device for clinical or marketing purposes. It may be used under medical conditions using transcutaneous oxygen measurement for clinical assessment or monitoring. It may be delivered means of a spray and used in a modification of the Medtronic Bravo pH monitoring system used to monitor pH and/or oxygen in cancer with or without concomitant delivery of oxygen or medication.

The tetrameric oxygen containing solution is used to treat medical conditions, including but not limited to current conditions, requiring oxygen. It may be used in a host of medical applications, including medical research:

It may be used to facilitate drug mechanisms of existing drugs, for

prevention of infection, treatment of infection and treatment of refractory infection, as treatment for patients requiring supplemental oxygen in respiratory conditions or in environments with compromised oxygen, to help heal and prevent infection after surgical procedures including laser, plastic surgery, post Botox injection. It may be used to treat ischemia induced conditions, for example, to increase tissue oxygenation in non-healing ulcers due to ischemia and for transcutaneous oxygen delivery for treatment of surgical wounds, non-healing ulcers due to ischemia.

It may be an ophthalmic preparation as an aqueous solution delivered in the form of a drop. It may be used for prevention of ocular damage associated with aging, free radicals and metabolite mediated cellular damage, prevention and treatment of cataracts, and for preservation of corneal health in corneal transplant and other organ transplants, and tissue transplants including skin grafts. It may be used for prevention and treatment age related macular degeneration, corneal hypoxia from contact lens wear, ocular ischemia and retinopathies.

It may be delivered by intradermal injection or a transdermal patch for pain relief or treatment of other conditions, as a body wrap, in combination as a transdermal delivery system for prolonged pain relief, as a transdermal patch for treatment of cardiac induced ischemia and respiratory insufficiency, and with other ingredients as pain, muscle relief formula for prevention of lactic acid build-up and induced muscle cramping and other related conditions. It may be used for drug delivery through the scalp.

It may be used to treat respiratory conditions, vascular and circulatory insufficiencies and peripheral vascular disease. It may be used as target therapy, for example, when the hypoxic induction factor (HIF) pathway is a target or when the target tissue is arteriosclerosis and

atherosclerotic plaques. It may be used as adjunct to chemotherapy and radiation therapy, as an adjunct treatment in anesthesia, as an anti-aging agent, as a free-radical scavenger or neutralizer, reperfusion induced arrhythmias, reperfusion of limbs, vasculogenic damage and trauma induced ischemia, as immunotherapy, in infectious and inflammatory conditions. It maybe used for treating conditions normally treated by hyperbaric oxygen including but not limited to strokes, migraine headaches, refractory infection, wounds, anemia, air or gas embolism, carbon monoxide poisoning, myositis and myonecrosis, crush injury, compartment syndrome and acute traumatic ischemias, decompression sickness, wounds, abscess, necrotizing soft tissue infection, osteomyelitis, skin grafts and flaps, thermal burns, and radiation injury, fungal, bacterial, viral & inflammatory conditions. It may be used for prevention and treatment of neurological deterioration in neurological conditions including but not limited to: Parkinson's disease, Alzheimer's and other neurodegenerative diseases.

It may be used as an oxygen delivery system for healthy or compromised skin and for treatment of skin conditions and increasing transcutaneous levels of tissue oxygenation, as gene therapy and as an adjunct to gene therapy and in conjunction with a vector for gene therapy or medical treatment. It may be used as an agent for prevention and reduction of skin wrinkles, comedogenicity, providing moisture and improving tone, tightening pores, as in cleansing skin as a sterile solution (i. e. surgical prep).

It may be used for treating cancer and reducing hypoxic states induced by cancer and relieving tumor resistance by improving oxygen delivery to tissues, for example, as a chemotherapy adjunct or incorporated within existing drugs to improve pharmacokinetics for

chemotherapy and radiation therapy moderator, and for study mechanisms of cancer as related to hypoxia and resistance, optimal treatment and tumor growth. It may be used for prevention of cancer, prevention and treatment of cancer metastases, treatment of cancer, increasing chemotherapy sensitivity and radiosensitivity of tumors, relieving tumor resistance by creating a localized hyperbaric condition, cancer safety research, cancer research, and protocol development. It may be used to prevent and treat skin damage in cancer patients (i. e. delayed radiation injury) and to prevent development of molecular damage and skin cancer.

It may be used for the treatment and prevention of anemia and hemoglobinopathies and blood dyscrasias, photo reactivation of existing HIV infection, Herpes and prevention and reduction of increased viral load from UV reactivation and conditions related to HIV and AIDS and other immune deficiency conditions, and mitochondrial damage from reactive oxygen species, UV induced damage, of angina and cardiac conditions.

It may be used for the treatment of peripheral neuropathies and ischemia induced pain, to prevent damage from decreased ozone and associated UV damage, to prevent and treat impairment of immune function related to UV exposure, as treatment of ischemic and vasculogenic neuropathies, ocular and systemic vasculopathies in diabetes and other related conditions, vasculogenic headaches including but not limited to migraines.

It may be used to increase viability of transplant organs cornea, liver kidneys, cardiac, pancreas and stem cells, to facilitate fetal lung development and treat fetal hypoxia and related conditions, to prevent and treat antioxidant and reactive oxygen species related damage, to treat

- burns, wounds and other non-healing wounds, to increase tissue oxygenation and tissue oxygen saturation, to facilitate wound healing in wounds, skin grafts and flaps, as an adjunct or incorporated within drugs to improve pharmacokinetics for antibiotics or as an adjunct to antibiotic treatment, in anesthesia procedures, with laser or treatment with ultrasound, and as a method of detoxification, immunotherapy and microcidal, microstatic.

It also has non-medical applications: For example, it may be used for culturing cells, for development of hair dye, for neutralization or prevention of hydrogen peroxide and other free radicals and reactive oxygen species, for use in marketing products with a transcutaneous oxygen monitor.